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         RAW SEQUENCE LISTING              DATE: 09/10/2001
         PATENT APPLICATION:  US/09/899,422    TIME: 09:20:17

         Input Set : A:\98385Hseq.txt
         Output Set: N:\CRF3\09102001\I899422.raw

   3 <110> APPLICANT: Hauptmann, Rudolph
   4        Himmler, Adolph
   5        Maurer-Fogy, Ingrid
   6        Stratowa, Christian
   8 <120> TITLE OF INVENTION: TNF Receptors, TNF Binding Proteins and DNAs Coding for
   9        Them
  11 <130> FILE REFERENCE: 98,385-H
  13 <140> CURRENT APPLICATION NUMBER: 09/899,422
C--> 14 <141> CURRENT FILING DATE: 2001-08-21
  16 <150> PRIOR APPLICATION NUMBER: 09/525,998
  17 <151> PRIOR FILING DATE: 2000-03-15
  19 <150> PRIOR APPLICATION NUMBER: 08/383,676
  20 <151> PRIOR FILING DATE: 1995-02-01
  22 <150> PRIOR APPLICATION NUMBER: 08/153,287
  23 <151> PRIOR FILING DATE: 1993-11-17
  25 <150> PRIOR APPLICATION NUMBER: 07/821,750
  26 <151> PRIOR FILING DATE: 1992-01-02
  28 <150> PRIOR APPLICATION NUMBER: 07/511,430
  29 <151> PRIOR FILING DATE: 1990-04-20
  31 <160> NUMBER OF SEQ ID NOS: 87
  33 <170> SOFTWARE: PatentIn Ver. 2.0
  35 <210> SEQ ID NO: 1
  36 <211> LENGTH: 1368
  37 <212> TYPE: DNA
  38 <213> ORGANISM: Homo sapiens
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  41 <221> NAME/KEY: CDS
  42 <222> LOCATION: (1)..(1368)
  44 <220> FEATURE:
  45 <221> NAME/KEY: sig_peptide
  46 <222> LOCATION: (1)..(87)
  48 <220> FEATURE:
  49 <221> NAME/KEY: misc_feature
  50 <222> LOCATION: (88)..(120)
  51 <223> OTHER INFORMATION: Portion of TNF-BP pro protein cleaved by
  52        extracellular proteases following secretion.
  54 <220> FEATURE:
  55 <221> NAME/KEY: misc_feature
  56 <222> LOCATION: (606)..(633)
  57 <223> OTHER INFORMATION: Portion of TNF-BP pro protein cleaved by
  58        extracellular proteases following secretion.
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  62 Met Gly Leu Ser Thr Val Pro Asp Leu Leu Leu Pro Leu Val Leu Leu
  63   1               5                  10                  15
  65 gag ctg ttg gtg gga ata tac ccc tca ggg gtt att gga ctg gtc cct    96
  66 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
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p. 5

RAW SEQUENCE LISTING   DATE: 09/10/2001
PATENT APPLICATION: US/09/899,422   TIME: 09:20:17

Input Set : A:\98385Hseq.txt
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70 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
71          35                  40                  45
73 tat atc cac cct caa aat aat tcg att tgc tgt acc aag tgc cac aaa      192
74 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
75       50                  55                  60
77 gga acc tac ttg tac aat gac tgt cca ggc ccg ggg cag gat acg gac      240
78 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
79 65                  70                  75                  80
81 tgc agg gag tgt gag agc ggc tcc ttc acc gct tca gaa aac cac ctc      288
82 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
83                  85                  90                  95
85 aga cac tgc ctc agc tgc tcc aaa tgc cga aag gaa atg ggt cag gtg      336
86 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
87          100                 105                 110
89 gag atc tct tct tgc aca gtg gac cgg gac acc gtg tgt ggc tgc agg      384
90 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
91          115                 120                 125
93 aag aac cag tac cgg cat tat tgg agt gaa aac ctt ttc cag tgc ttc      432
94 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
95       130                 135                 140
97 aat tgc agc ctc tgc ctc aat ggg acc gtg cac ctc tcc tgc cag gag      480
98 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
99 145                 150                 155                 160
101 aaa cag aac acc gtg tgc acc tgc cat gca ggt ttc ttt cta aga gaa     528
102 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
103                 165                 170                 175
105 aac gag tgt gtc tcc tgt agt aac tgt aag aaa agc ctg gag tgc acg     576
106 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
107                 180                 185                 190
109 aag ttg tgc cta ccc cag att gag aat gtt aag ggc act gag gac tca     624
110 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
111          195                 200                 205
113 ggc acc aca gtg ctg ttg ccc ctg gtc att ttc ttt ggt ctt tgc ctt     672
114 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
115       210                 215                 220
117 tta tcc ctc ctc ttc att ggt tta atg tat cgc tac caa cgg tgg aag     720
118 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
119 225                 230                 235                 240
121 tcc aag ctc tac tcc att gtt tgt ggg aaa tcg aca cct gaa aaa gag     768
122 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
123                 245                 250                 255
125 ggg gag ctt gaa gga act act act aag ccc ctg gcc cca aac cca agc     816
126 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
127                 260                 265                 270
129 ttc agt ccc act cca ggc ttc acc ccc acc ctg ggc ttc agt ccc gtg     864
130 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
131          275                 280                 285
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PATENT APPLICATION: US/09/899,422   TIME: 09:20:17

Input Set : A:\98385Hseq.txt
Output Set: N:\CRF3\09102001\I899422.raw

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133 ccc agt tcc acc ttc acc tcc agc tcc acc tat acc ccc ggt gac tgt   912
134 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
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137 ccc aac ttt gcg gct ccc cgc aga gag gtg gca cca ccc tat cag ggg   960
138 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
139 305             310             315                 320
141 gct gac ccc atc ctt gcg aca gcc ctc gcc tcc gac ccc atc ccc aac   1008
142 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
143             325             330             335
145 ccc ctt cag aag tgg gag gac agc gcc cac aag cca cag agc cta gac   1056
146 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
147             340             345             350
149 act gat gac ccc gcg acg ctg tac gcc gtg gtg gag aac gtg ccc ccg   1104
150 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
151         355             360             365
153 ttg cgc tgg aag gaa ttc gtg cgg cgc cta ggg ctg agc gac cac gag   1152
154 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
155     370             375             380
157 atc gat cgg ctg gag ctg cag aac ggg cgc tgc ctg cgc gag gcg caa   1200
158 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
159 385             390             395                 400
161 tac agc atg ctg gcg acc tgg agg cgg cgc acg ccg cgg cgc gag gcc   1248
162 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
163             405             410             415
165 acg ctg gag ctg ctg gga cgc gtg ctc cgc gac atg gac ctg ctg ggc   1296
166 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
167             420             425             430
169 tgc ctg gag gac atc gag gag gcg ctt tgc ggc ccc gcc gcc ctc ccg   1344
170 Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
171         435             440             445
173 ccc gcg ccc agt ctt ctc aga tga                                   1368
174 Pro Ala Pro Ser Leu Leu Arg
175     450             455
178 <210> SEQ ID NO: 2
179 <211> LENGTH: 455
180 <212> TYPE: PRT
181 <213> ORGANISM: Homo sapiens
183 <400> SEQUENCE: 2
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185   1             5             10              15
187 Glu Leu Leu Val Gly Ile Tyr Pro Ser Gly Val Ile Gly Leu Val Pro
188             20              25              30
190 His Leu Gly Asp Arg Glu Lys Arg Asp Ser Val Cys Pro Gln Gly Lys
191         35              40              45
193 Tyr Ile His Pro Gln Asn Asn Ser Ile Cys Cys Thr Lys Cys His Lys
194     50              55              60
196 Gly Thr Tyr Leu Tyr Asn Asp Cys Pro Gly Pro Gly Gln Asp Thr Asp
197 65              70              75              80
199 Cys Arg Glu Cys Glu Ser Gly Ser Phe Thr Ala Ser Glu Asn His Leu
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RAW SEQUENCE LISTING   DATE: 09/10/2001
PATENT APPLICATION: US/09/899,422 TIME: 09:20:17

Input Set : A:\98385Hseq.txt
Output Set: N:\CRF3\09102001\I899422.raw

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202 Arg His Cys Leu Ser Cys Ser Lys Cys Arg Lys Glu Met Gly Gln Val
203              100          105          110
205 Glu Ile Ser Ser Cys Thr Val Asp Arg Asp Thr Val Cys Gly Cys Arg
206          115          120          125
208 Lys Asn Gln Tyr Arg His Tyr Trp Ser Glu Asn Leu Phe Gln Cys Phe
209      130          135          140
211 Asn Cys Ser Leu Cys Leu Asn Gly Thr Val His Leu Ser Cys Gln Glu
212 145          150          155              160
214 Lys Gln Asn Thr Val Cys Thr Cys His Ala Gly Phe Phe Leu Arg Glu
215          165          170          175
217 Asn Glu Cys Val Ser Cys Ser Asn Cys Lys Lys Ser Leu Glu Cys Thr
218          180          185          190
220 Lys Leu Cys Leu Pro Gln Ile Glu Asn Val Lys Gly Thr Glu Asp Ser
221      195          200          205
223 Gly Thr Thr Val Leu Leu Pro Leu Val Ile Phe Phe Gly Leu Cys Leu
224      210          215          220
226 Leu Ser Leu Leu Phe Ile Gly Leu Met Tyr Arg Tyr Gln Arg Trp Lys
227 225          230          235              240
229 Ser Lys Leu Tyr Ser Ile Val Cys Gly Lys Ser Thr Pro Glu Lys Glu
230          245          250          255
232 Gly Glu Leu Glu Gly Thr Thr Thr Lys Pro Leu Ala Pro Asn Pro Ser
233          260          265          270
235 Phe Ser Pro Thr Pro Gly Phe Thr Pro Thr Leu Gly Phe Ser Pro Val
236          275          280          285
238 Pro Ser Ser Thr Phe Thr Ser Ser Ser Thr Tyr Thr Pro Gly Asp Cys
239      290          295          300
241 Pro Asn Phe Ala Ala Pro Arg Arg Glu Val Ala Pro Pro Tyr Gln Gly
242 305          310          315          320
244 Ala Asp Pro Ile Leu Ala Thr Ala Leu Ala Ser Asp Pro Ile Pro Asn
245          325          330          335
247 Pro Leu Gln Lys Trp Glu Asp Ser Ala His Lys Pro Gln Ser Leu Asp
248          340          345          350
250 Thr Asp Asp Pro Ala Thr Leu Tyr Ala Val Val Glu Asn Val Pro Pro
251      355          360          365
253 Leu Arg Trp Lys Glu Phe Val Arg Arg Leu Gly Leu Ser Asp His Glu
254      370          375          380
256 Ile Asp Arg Leu Glu Leu Gln Asn Gly Arg Cys Leu Arg Glu Ala Gln
257 385          390          395          400
259 Tyr Ser Met Leu Ala Thr Trp Arg Arg Arg Thr Pro Arg Arg Glu Ala
260          405          410          415
262 Thr Leu Glu Leu Leu Gly Arg Val Leu Arg Asp Met Asp Leu Leu Gly
263          420          425          430
265 Cys Leu Glu Asp Ile Glu Glu Ala Leu Cys Gly Pro Ala Ala Leu Pro
266          435          440          445
268 Pro Ala Pro Ser Leu Leu Arg
269      450          455
272 <210> SEQ ID NO: 3
273 <211> LENGTH: 483
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RAW SEQUENCE LISTING   DATE: 09/10/2001
PATENT APPLICATION: US/09/899,422   TIME: 09:20:17

Input Set : A:\98385Hseq.txt
Output Set: N:\CRF3\09102001\I899422.raw

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275 <213> ORGANISM: Homo sapiens
277 <220> FEATURE:
278 <221> NAME/KEY: CDS
279 <222> LOCATION: (1)..(483)
281 <400> SEQUENCE: 3
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284   1               5                  10                  15
286 att tgc tgt acc aag tgc cac aaa gga acc tac ttg tac aat gac tgt    96
287 Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys
288               20                  25                  30
290 cca ggc ccg ggg cag gat acg gac tgc agg gag tgt gag agc ggc tcc   144
291 Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser
292           35                  40                  45
294 ttc acc gct tca gaa aac cac ctc aga cac tgc ctc agc tgc tcc aaa   192
295 Phe Thr Ala Ser Glu Asn His Leu Arg His Cys Leu Ser Cys Ser Lys
296      50                  55                  60
298 tgc cga aag gaa atg ggt cag gtg gag atc tct tct tgc aca gtg gac   240
299 Cys Arg Lys Glu Met Gly Gln Val Glu Ile Ser Ser Cys Thr Val Asp
300  65                  70                  75                  80
302 cgg gac acc gtg tgt ggc tgc agg aag aac cag tac cgg cat tat tgg   288
303 Arg Asp Thr Val Cys Gly Cys Arg Lys Asn Gln Tyr Arg His Tyr Trp
304               85                  90                  95
306 agt gaa aac ctt ttc cag tgc ttc aat tgc agc ctc tgc ctc aat ggg   336
307 Ser Glu Asn Leu Phe Gln Cys Phe Asn Cys Ser Leu Cys Leu Asn Gly
308              100                 105                 110
310 acc gtg cac ctc tcc tgc cag gag aaa cag aac acc gtg tgc acc tgc   384
311 Thr Val His Leu Ser Cys Gln Glu Lys Gln Asn Thr Val Cys Thr Cys
312          115                 120                 125
314 cat gca ggt ttc ttt cta aga gaa aac gag tgt gtc tcc tgt agt aac   432
315 His Ala Gly Phe Phe Leu Arg Glu Asn Glu Cys Val Ser Cys Ser Asn
316          130                 135                 140
318 tgt aag aaa agc ctg gag tgc acg aag ttg tgc cta ccc cag att gag   480
319 Cys Lys Lys Ser Leu Glu Cys Thr Lys Leu Cys Leu Pro Gln Ile Glu
320 145                 150                 155                 160
322 aat                                                              483
323 Asn
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327 <211> LENGTH: 161
328 <212> TYPE: PRT
329 <213> ORGANISM: Homo sapiens
331 <400> SEQUENCE: 4
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335 Ile Cys Cys Thr Lys Cys His Lys Gly Thr Tyr Leu Tyr Asn Asp Cys
336               20                  25                  30
338 Pro Gly Pro Gly Gln Asp Thr Asp Cys Arg Glu Cys Glu Ser Gly Ser
339           35                  40                  45
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VERIFICATION SUMMARY   DATE: 09/10/2001
PATENT APPLICATION: US/09/899,422   TIME: 09:20:18

Input Set : A:\98385Hseq.txt
Output Set: N:\CRF3\09102001\I899422.raw

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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:815 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:847 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:885 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:1419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18
L:1439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:1485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:1551 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:1626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:1667 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:1670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:1689 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:1692 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:1725 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
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